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Century V102

Century A.O. Smith V102 Motor User Manual

Model: V102 | Brand: Century

1. PRODUCT OVERVIEW

The Century A.O. Smith V102 is a robust 2 HP, 1725 RPM, 115/208-230 Volts capacitor start motor designed for a wide range of industrial and commercial applications. Its energy-efficient design makes it suitable for use with compressors, pumps, conveyors, milking machines, blowers, and fans. This motor features a 145T frame, ODP (Open Drip Proof) enclosure, and durable ball bearings for reliable performance.



Image of the Century A.O. Smith V102 motor, a black, robust electric motor with a shaft extending from one end and two capacitor housings on top. It features a label on the side detailing its specifications.

2. SAFETY INFORMATION

Read and understand all safety instructions before installing, operating, or maintaining this motor. Failure to follow these instructions may result in serious injury or property damage.

- **Electrical Hazard:** Always disconnect power at the source before performing any installation, wiring, or maintenance. Ensure proper grounding to prevent electric shock.
- **Moving Parts:** Keep hands, hair, clothing, and tools clear of rotating parts during operation.
- **Hot Surfaces:** The motor may become hot during operation. Allow it to cool before handling or performing maintenance.
- **Qualified Personnel:** Installation and wiring should be performed by a qualified electrician or trained personnel in accordance with all local and national electrical codes.
- **Ventilation:** Ensure adequate ventilation around the motor to prevent overheating. Do not block air vents.

3. PACKAGE CONTENTS

Verify that all items are present and undamaged upon unpacking.

- 1 x Century A.O. Smith V102 Motor

4. SETUP AND INSTALLATION

4.1 Mounting

Mount the motor securely on a stable, level surface using appropriate fasteners. Ensure the mounting base is rigid enough to support the motor's weight and absorb any vibration during operation. The motor's dimensions are approximately 16.5 x 10.5 x 10.5 inches and it weighs about 41.9 pounds.

4.2 Electrical Connection

WARNING: Ensure power is disconnected before wiring.

- Refer to the wiring diagram located on the motor's nameplate for correct electrical connections.
- Ensure the power supply voltage matches the motor's requirements (115/208-230 Volts).
- Use appropriate wire gauges and circuit protection (e.g., circuit breakers or fuses) as required by local electrical codes.
- Properly ground the motor to prevent electrical hazards.

5. OPERATION

Once the motor is securely mounted and correctly wired, it is ready for operation. Before starting, ensure that any connected equipment (e.g., pump, fan) is properly aligned and free from obstructions.

- **Initial Start-up:** Turn on the power supply. The motor should start smoothly and reach its operating speed of 1725 RPM.

- **Monitoring:** During initial operation and periodically thereafter, monitor the motor for any unusual noises, excessive vibration, or signs of overheating.
- **Load:** Ensure the motor is not subjected to loads exceeding its 2 HP rating, as this can lead to overheating and premature failure.

6. MAINTENANCE

Regular maintenance helps ensure the longevity and efficient operation of your motor.

- **Cleaning:** Periodically clean the exterior of the motor, especially the ventilation openings, to prevent dust and debris buildup. A clean motor dissipates heat more effectively.
- **Lubrication:** This motor is equipped with ball bearings, which are typically sealed and require no routine lubrication. Refer to the motor's nameplate or manufacturer's guidelines for specific lubrication requirements if any.
- **Inspection:** Regularly inspect electrical connections for tightness and signs of wear or corrosion. Check mounting bolts for tightness.
- **Vibration Check:** Monitor for any increase in vibration, which could indicate bearing wear or misalignment.

7. TROUBLESHOOTING

This section provides solutions to common issues you might encounter.

- **Motor Does Not Start:**
 - Check power supply: Ensure power is on and voltage is correct (115/208-230 Volts).
 - Check circuit breaker/fuse: Reset or replace if tripped/blown.
 - Verify wiring: Ensure all electrical connections are secure and correct according to the wiring diagram.
- **Motor Overheats:**
 - Check ventilation: Ensure air vents are clear and there is adequate airflow around the motor.
 - Reduce load: The motor may be overloaded. Reduce the load on the connected equipment.
 - Check ambient temperature: Ensure the operating environment is within acceptable temperature limits.
- **Excessive Noise or Vibration:**
 - Check mounting: Ensure the motor is securely mounted and all bolts are tight.
 - Check alignment: Verify proper alignment between the motor shaft and the connected equipment.
 - Inspect bearings: Worn bearings can cause noise and vibration. If suspected, professional inspection may be required.

8. SPECIFICATIONS

Specification	Value
Brand	Century
Model Number	V102
Horsepower	2 HP
Speed	1725 RPM
Voltage	115/208-230 Volts
Frame	145T
Enclosure	ODP (Open Drip Proof)
Bearing Type	Ball Bearing
Material	Copper
Item Weight	41.9 pounds
Product Dimensions	16.5 x 10.5 x 10.5 inches
UPC	786674033420
Manufacturer	Century Electric/AO Smith Motors Co

9. WARRANTY AND SUPPORT

Specific warranty details for the Century A.O. Smith V102 motor are not provided in this manual. For information regarding warranty coverage, claims, or technical support, please contact the manufacturer, Century Electric/AO Smith Motors Co, or your authorized dealer.

It is recommended to retain your proof of purchase for any warranty-related inquiries.